

MISCELLANEOUS NOTES

1. A NOTE ON DISTRIBUTION RANGE OF HANUMAN LANGUR
SEMNOPITHECUS ENTELLUS (DUFRESNE) AND RHESUS MACAQUE
MACACA MULATTA (ZIMMERMANN) IN RAJASTHANSATISH KUMAR SHARMA¹¹Sajjangarh Wildlife Sanctuary, Udaipur 313 001, Rajasthan, India. Email: sksharma56@gmail.com

Many workers namely, Agoramoorthy (1992), Bhargava (1984), Bhati and Srivastava (1988), Chhangani (2002), Mathur (1994), Mathur and Manohar (1986, 1987, 1993, 1994), Manohar and Mathur (1992), Mohnot (1984), Roonwal (1984), Roonwal *et al.* (1984), Sharma (1995, 1999, 2001a,b, 2002, 2004, 2007), Sharma *et al.* (2000), Sharma *et al.* (2006), Sivsubramanian (1986), Tehsin (2006) and Wada (1984) have studied various aspects of two primate species of Rajasthan, namely Hanuman Langur *Semnopithecus entellus* (Dufresne) and Rhesus Macaque *Macaca mulatta* (Zimmermann). The extent of distribution range of both the primates in Rajasthan is an important aspect of primate biology, which is neglected. Sporadic information about the distribution range of *S. entellus* in Rajasthan is available in Bhati and Srivastava (1988), Mohnot (1984), and Roonwal (1984), but nothing is known about the distribution range of *M. mulatta* in the State.

To fill this gap and to learn the exact distribution range of both these primates in the wild in Rajasthan, I screened my field notes from 1980 to 2007. During this period,

I had travelled the entire state widely. All the habitats were visited frequently. Many forest areas, cities, towns, temples and markets were studied to record the presence of primates. Findings of this study are presented in Table 1.

It is evident from Table 1 that *S. entellus* has a greater distribution range than *M. mulatta* in Rajasthan (Fig. 1). *S. entellus* is present in Aravallis, and east and west of Aravallis up to Jodhpur district. Wild population of *S. entellus* is present in 28 districts, namely Kota, Baran, Bundi, Jhalawar, Karauli, Sawai Madhopur, Dholpur, Bharatpur, Alwar, Dausa, Jaipur, Jhunjhunu, Sikar (eastern part), Nagaur (eastern part), Ajmer, Bhilwara, Tonk, Chittorgarh, Banswara, Dungarpur, Udaipur, Rajsamand, Pali, Sirohi, Jalore (northern part), Barmer (eastern part), Churu (eastern part) and Jodhpur (eastern part). Wild population of *S. entellus* is absent in the extreme western and northern part of the state. This species is absent in wild in Ganganagar and Hanumangarh districts but sometimes solitary animals (probably released/introduced) are seen inside Ganganagar and Hanumangarh city area.

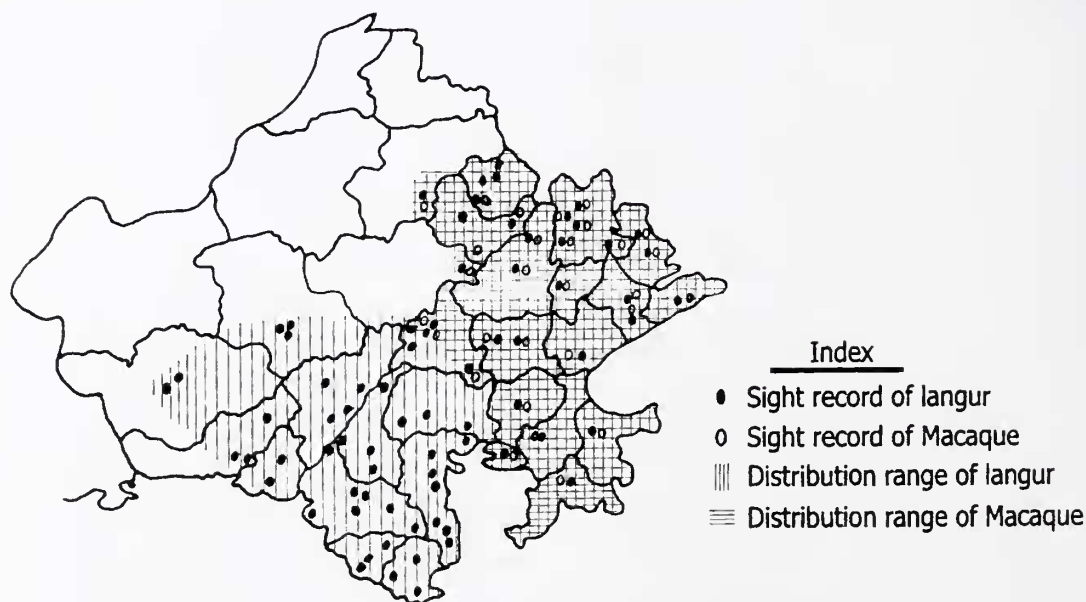


Fig. 1: Text figure of distribution range of Hanuman Langur and Rhesus Macaque in Rajasthan

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Table 1: Distribution of *S. entellus* and *M. mulatta* in Rajasthan

District	Locality of occurrence of primates	
	<i>Semnopithecus entellus</i>	<i>Macaca mulatta</i>
Udaipur	Phulwari WLS, Sajjangarh WLS, Kumbhalgarh WLS, Jaisamand WLS, Baghdarra, Jawar, Dhariyawad and whole of Udaipur district	Absent in wild
Rajsamand	Rajsamand, Kankroli, Nathdwara and entire district	Absent in wild
Dungarpur	Dungarpur city, Waid, Aaspur, and entire district	Absent in wild
Banswara	Banswara, Ghatol, Garhi and entire district	Absent in wild
Pali	Pali, Sadri, Ranakpur and entire district	Absent in wild
Bhilwara	Bhilwara, Gangapur, Sahada, Mandal, Mandalgarh and entire district	Absent in wild
Chittorgarh	Chittorgarh, Sitamata, Menal, Chhoti Sadri, Badi Sadri, Nimbaheda, Pratapgarh, Arnod and entire district except Rawatbhata	Rawatbhata
Jalore	Jalore city, Jaswantpura, Sunda Mata	Absent in wild
Sirohi	Mt. Abu, Abu Road, Sirohi, Pindwara and entire district	Absent in wild
Jodhpur	Mandor, Arnaji, Jodhpur	Absent in wild
Jaisalmer	Big troops absent. Sometimes individuals (probably released /introduced) are seen in city (Dr. A.K. Chhangani pers. comm.)	Absent in wild
Barmer	Barmer, Kawas	Absent in wild
Ganganagar and Hanumangarh	Absent, sometimes individuals (probably released / introduced) are seen in city (Dr. Pratap Singh pers. comm.)	Absent in wild
Ajmer	Todgarh - Raoli WLS, Pushkar, Beawar and entire district	Species present at Majewala, Pushkar and Pisangan. It is absent in southern part of Ajmer district
Sawai Madhopur	Entire district	Ranthambhore NP, Sawai Madhopur city and entire district
Nagaur	Maroth	Maroth
Karauli	Karauli, Hindon and entire district	Karauli, Hindon and entire district
Kota	Kota city and entire district	Kota city and entire district
Bharatpur	KNP, Bharatpur city, Deeg and entire district	KNP, Bharatpur city, Deeg and entire district
Bundi	Bundi city and entire district	Bundi city and entire district
Alwar	Sariska Tiger Project, Thanagaji, Alwar city, Vijai Mandir, Tatarpur, Bansur, Jindoli and entire district	Sariska Tiger Project, Thanagaji, Alwar city, Vijai Mandir, Tatarpur, Bansur, Jindoli and entire district
Jhunjhunu	Lohargal, Jhunjhunu and other urban areas	Lohargal (Teh. Nawalgarh)
Jaipur	Jaipur city, Amber, Nahargarh WLS, Shahpur, Jamwa Ramgarh WLS, Malpura and entire district	Jaipur city, Amber, Nahargarh WLS, Shahpur, Jamwa Ramgarh WLS, Malpura and entire district
Sikar	Sikar city, Baleshwar temple and other urban area	Patan, Khachariyawas, Khatu Shyam, Baleshwar and Ganeshwar temple near Neem-ka-Thana
Churu	Salasar	Salasar
Dholpur	Dholpur and entire district	Dholpur and entire district
Dausa	Bandikui, Dausa, Mandawar and entire district	Bandikui, Dausa, Mandawar and entire district
Baran	Baran town, Shahabshanganj, Sitamata and entire district	Baran town, Shahabad, Kishanganj, Sitamata and entire district
Jhalawar	Jhalawar, Jhalarpatan and entire district	Jhalawar, Jhalarpatan and entire district
Tonk	Tonk town, Niwai, Deoli, Uniyara and entire district	Tonk town, Niwai, Deoli, Uniyara and entire district

The Jodhpur population of *S. entellus* represents the extreme western geographical limit of the species beyond which the Hanuman Langur is not found in the Thar desert (Mohnot 1984; Roonwal 1984). Rhesus Macaque has a more restricted distribution range in Rajasthan than Langur. The Macaque is present in the wild in 18 districts of north-eastern and south-eastern part of the state, namely Jhunjhunu, Sikar (eastern part), Nagaur (eastern part), Churu (eastern part), Jaipur, Dausa, Alwar, Bharatpur, Dholpur, Karauli, Sawai Madhopur, Kota, Bundi, Baran, Jhalawar, Chittorgarh (eastern part), Tonk and Ajmer. Langur and Macaque are sympatric in distribution in 18 districts in northern and central Aravallis, as well as in the eastern plains and Hadoti zone of south-eastern Rajasthan. Wild population of macaque is absent in southern Aravallis and major part of the Thar desert. As far as desert areas are concerned, macaque is present in four desert districts, namely Churu, Jhunjhunu, Sikar (eastern part) and Nagaur (eastern part) and lives sympatrically with the Langur. *S. entellus* is allopatric in distribution in 10 districts, namely Bhilwara, Banswara, Dungarpur, Udaipur, Rajsamand, Sirohi (all southern Aravalli districts); Pali, Jalore, Barmer and Jodhpur (all Thar desert districts). It is evident from Table 1 that macaque is absent from deeper zones of the Thar desert and southern hilly forest tracts of the state. This species does not extend beyond the eastern fringe of the Thar desert.

Sometimes single individuals or group of twos, threes and even more of langurs and macaques are seen in distant cities and towns out of their known distribution range. Where they come from is not known. After residing for a few days or months they disappear (Bhargava 1984). Sometimes these nomadic primates create panic in urban areas and people demand their removal. In such a situation, the free ranging primates are captured either by municipal authorities or officials of the Forest Department, and they are released in remote areas.

The presence of the Indira Gandhi Canal in the Thar desert has increased the availability of water and greenery in the western part of the State. New plantations in the canal area are providing potential habitat for the primates. Many bird species earlier not seen in the region are now observed here (Sharma 2001). In the near future, primates are also likely to appear in newer areas of the Thar desert.

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2. SIGHT RECORD OF THE INDIAN WOLF *CANIS LUPUS PALLIPES* IN THE RIVER GANDAK FLOODPLAINS

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The Indian Wolf *Canis lupus pallipes* is categorized as Endangered by the IUCN (an assessment by the Canid Specialist Group of IUCN) and is a Schedule I animal in the Wildlife (Protection) Act 1972 of India. It had once one of the largest natural range of any land mammal (Sheldon 1992). The Indian Wolf is widely distributed over peninsular India (Jhala 2003). Before division, Bihar was amongst the range states of the Indian wolf distribution. Presence of Indian Wolf has been recorded in Chhotanagpur plateau region of south Bihar, presently Jharkhand, since the British times, where it had gained the notoriety of being a child-lifter and even a man-eater (Pocock 1939; Shahi 1982). There are no records of the Indian Wolf being present in the geographic region north of the Ganges river in Bihar. Another subspecies of the wolf found in the Indian subcontinent, *Canis lupus chanco* commonly called the Tibetan wolf, has a trans-Himalayan distribution up to east Nepal and the range extends into Tibet, China, Manchuria and Mongolia (Jhala 2003). There is no record of its presence in the Terai region of India and Nepal.

The Gandak is a mountain-fed river known as the Krishna-Gandaki in its upper reaches. It rises in the high region of Tibet and Nepal, where it drains a large region, before emerging on the plains of the West Champaran district of northern Bihar. It enters India at Valmikinagar (27° 26' 192" N; 83° 54' 429" E) in West Champaran from where it traverses c. 331 km before meeting the Ganges at Hazipur

near Patna (25° 39' 935" N; 85° 10' 643" E). The Gandak river is braided throughout its course between the point where it emerges in the plains to its confluence with the Ganga. A barrage is constructed across Gandak river at the Indo-Nepal border at Valmikinagar to divert the water for irrigation and power generation. The water discharge below the barrage is very low during the summer and winter months making the river extremely shallow downstream of the barrage. From the point of entry, it flows along the Valmikinagar Tiger Reserve in Bihar on the left bank, and Nepal on the right bank, then after entry into Gorakhpur district in Uttar Pradesh along the Soahagi Barwa Wildlife Sanctuary on the right bank in Uttar Pradesh and again enters West Champaran district in Bihar. Extensive farming is done on the floodplains along both the banks where sugarcane cultivation is dominant. Cultivated fields are spread between with large patches and extensive tracts of grasslands dominated by Poaceae species. These grasslands provide ideal habitat for different species of ungulates, namely Nilgai *Boselaphus tragocamelus*, Indian Wild Boar *Sus Scrofa*, the Hog Deer *Axis porcinus*, and the Indian Hare *Lepus nigricollis*. This indicates that the wolf has in fact a wide variety of prey available in this area. This feature is predominant till c. 220 km downstream, after which extensive cucurbit cultivation is practiced till the confluence point in the floodplains and on every available mid-channel island. The Indian Wolf prefers to live in scrublands,